

# BEYOND PHD

**The demand for scientific results is increasing unstoppably all around the world. Becoming a “doctor” is generally considered a highly prestigious aspiration, and achieving it requires special efforts. But how much return can this venerated status yield for the individual and for society? And what is the price we all pay for this undertaking?**

In my experience as a trainer, I have found that obtaining a doctoral degree is the ultimate goal for many junior scientists (or doctoral students) who are willing to make massive sacrifices and invest considerable energies and resources before being conferred the esteemed title. There is a wide range of factors that can cause PhD students drop their studies. Insufficient funding, loss of motivation, lack of quality time to spend with supervisor and peers or to carry out the work are only some of them. Behind every cause, there is perhaps one common root: the candidate's inappropriate *attitude* towards pursuing a PhD degree.

## ATTITUDES TOWARDS GETTING A PHD DEGREE

‘It is definitely not to your advantage to have a PhD when you are looking for work on the labour market,’ a graduate school manager from United Kingdom confides in me; ‘companies are more open to hiring a candidate with an MA and well-developed soft skills obtained in a workplace than one with a PhD, whose knowledge is mostly theoretical,’ he adds. The doctoral school is specifically designed for people who like and want to be teaching or are looking to do research or become leaders in science. This is a huge investment to make only to gain entry into a particular segment of the labour market. Having a PhD is an advantage and also a requirement when it comes to filling an academic position in a university, a research company or institute according to Mary Beth Kneafsey, postgraduate research strategy manager (University of Glasgow).

‘Not more than ten students get admitted annually,’ explains György Csepeli, chair of the Interdisciplinary Social Research PhD Program at ELTE University, Budapest, Hungary. Since the climate of intimacy and togetherness is crucial for students in graduate schools and also for the schools in retaining the students, larger groups would probably not function as these would easily lose this climate of intimacy.

The drop-out rate is relatively high: 66% of doctoral candidates graduate within six years in Europe. (Source: survey by the European University Association,

Alexander Hasgall et al.) However, the author called my attention to the fact that the numbers did not represent the dropout rates, but rather the completion rates. Graduate schools intend to improve this rate; to this aiming they are trying to grant admission to students that are most likely to complete their course. However, they have insufficient time for recruitment; the decision is usually based on a relatively short interview, a letter of recommendation, and/or the papers submitted by the applicant, as explained to me by Gianmaria Martini, the coordinator of the PhD program in Economics, Management and Technology (University of Bergamo, Italy).

The best approach is the one in which the PhD graduation process is considered neither a goal, nor an admission ticket into the future, but a way of life. Asking questions and getting answers and asking more questions again for only the sake of knowledge. This is the *l'art pour l'art* practice of science. This apparently eastern approach is also true for western science: the most successful PhD students are those who enjoy their research work for what it is and do not have any specific aspirations in mind other than the enjoyment of scientific research and endeavour. This is what is in focus rather than graduation itself or a better prospective job. Somehow these graduate students attract more opportunities than their more zealous fellows.

## GRADUATE SCHOOLS: INTELLECTUAL LABORATORIES OR INSTITUTIONS OF MASS PRODUCTION?

With time, some PhD programs begin to resemble a factory, and some universities start to look like multinational corporations. A joke from the USA springs to mind about a student complaining at a high-end university: the graduate is trying to argue that she is a paying customer and deserves better treatment. 'You are not a customer; you are the *product* of the university,' the professor snarls back.

The competition is fierce, the ranking system is rigorous, and most of the candidates pay special attention to the ranking of the university when selecting the best fitting school, particularly when they pay tuition fees. Although PhD programs are not designed to attract vast masses of people, they are still not independent of the culture and the style of governance of the larger university organisation they are hosted by. Graduate schools are under great pressure from universities and the public to be comparable, measurable, and capable of being ranked. And this pressure is transferred upon the very same individuals who study and research among those university walls.

Uniformisation at the level of BA and MA is useful for the larger share of students: they know exactly what they will be getting in the process. The situation in doctoral schools is different. (No one can predict the future, of course, and this philosophical ambiguity is one of the most attractive elements of scientific research for students that are driven by more than the mere desire to be awarded a degree: the love and excitement of exploration.)

English Ross is a doctoral college manager at the University of Brighton. His attitude is similar to Mr Csepeli's; he also argues that it is no longer about the individual, but about the masses, and highlights the important role of KPI-s (key performance indicators) for supervisors, which have several positive effects on education.

Applying KPIs and insisting on compliance with the rules is more than just a mere tool in promoting compatibility with the demands of the labour market and business organisations. One positive impact, for instance, of this increasingly businesslike orientation of the organisations is evident in the decline in the number of abusive incidents by supervisors. But there is a more joyful side to being regulated. In an interview with Mary Beth Kneafsey she explained how much she enjoyed the presentation contests they set up for PhD-students: elevator pitches, PechaKucha, and Ignite were originally used in business organisations, but they are now competing with other economic graduate schools in Lombardia, as stated by Gianmaria Martini, coordinator of Applied Economics and Management doctoral program (University of Bergamo, Italy). Therefore, being rooted in a traditionally well-developed economic school system in Northern Italy, these schools must appear to be attractive to students who are still undecided on what career paths to pursue. Starting a PhD-program is sometimes a simple matter of extending your status of being unemployed, as explained to me by Paolo Garella, professor at the Department of Economics (University of Milan, Italy), when I started my series of interviews and workshops with PhD-students in 2014. These junior researchers received one thousand euros a month in the form of scholarship, which was a handsome figure in that year.

‘Doctoral students are treated as students, not as researchers,’ says Michal Sindelař, my former student at the Masaryk University (Brno, Czech Republic) and Gianmaria Martini also underpins this. Offering training programs and coaching services for different universities in different European universities and completing preparatory interviews often reminded me of the words of Alan Watts, ‘a philosopher today is a practical fellow who comes to the university with a briefcase at nine and leaves at five. He does philosophy during the day.’

## PUBLISH OR PERISH

The pressure is enormous, the number of scientific fora is growing exponentially; in addition, the forum for written discussion is not limited to accredited (peer-reviewed) journals either, but now includes popular online and offline platforms. Among other requirements, one of the main criteria to be awarded a PhD, is to publish in accredited journals. Scientists collect impact factors like pupils collect bonus points in schools. The more the better! As the quantity increases, the quality inevitable decreases. And the impact factor of two papers is sometimes greater than that awarded for writing a whole book, as one of my interviewees explains.

In some countries, where English is not the official language. One participant in one of my Milan workshops complained how they are forced to pay an extra fee in the university for having your work proofread. They have to make double effort to reach the same goal as they have to write in Italian and also in English.

More and more universities provide workshops where students can improve their writing skills. Students often give an unattractive and complicated title to their dissertation. 'Reaction of bidentate ligands (4,4'-dimethyl 2,2'-bipyridine) with planar-chiral chloro-bridged ruthenium: Synthesis of cis-dicarbonyl[4,4'-dimethyl-2,2'-bipyridine-  $\kappa$ O1, $\kappa$ O2]{2-[tricarbonyl( $\eta$ 6-phenylene- $\kappa$ C1)chromium]pyridine- $\kappa$ N}ruthenium hexafluorophosphate'. They want to say everything about their thesis in the title and feel the need to express their inclusion and participation in the scientific community through using a distinctive vernacular underscoring the boundary between their own community and broader society. The final step in the process is the defence: applicants submit their theses before the thesis committee and are asked a series of questions by the members of the committee. If the applicant would like to successfully defend his paper, a clear and intelligible title is more attractive for the opponents and for the members of the committee, since they are also human beings and do not want to be made bored or tired. Clear, concise, and easy-to-follow writing is critical on all levels of communication: the average taxpayer will not be convinced of the usefulness of scientific endeavours if they cannot understand what a perceived elite is doing in their ivory tower. It is in the common interest of every member of the scientific community to win science public recognition and also the taxpayers' money. Writing may be the most universal but is certainly not the only channel of communication of scientific findings.

## COMMUNICATION OF SCIENTIFIC RESEARCH

In past decades, many academic professionals had warned of the threat of science losing its foothold. Belief in parascience, occult science, esotericism, and conspiracy theories is now on the rise. We have already experienced the consequences of vaccine hesitancy, for instance, in 2020. Science is complex and does not provide ground-breaking results in the short term. To certain extent, science shares a likeness with politics: getting the voters' attention through super simple populist message is more effective than pursuing or implementing effective measures in the field of education, healthcare or developing a solid social safety net. And people do not like what they do not understand: this is the basis of the rejection. People in general are not interested in common sense, widespread belief in superstition is on the rise people seek public consensus and science is only one of the superstitions. In addition, people sometimes blame modern-age suffering and exploitation on the results of scientific efforts. Several communication channels have been created to dissipate the results of science (TV channels, mountains of books, popular and quality magazines, etc.), but many scientists consider these to be shallow products with commercial ambitions. Maybe some of them fear for their positions.

In all my workshops, my students are asked to explain their thesis in as plain a language as possible. A dissertation designed for their grandmothers. The immediate reaction is laughter followed by reluctance. They seem to struggle to spare their positions in the ivory tower; in their opinion, the most notable property of scientific methodology is its remoteness from everyday life.

## SKILLS

Improving skills is now widespread in doctoral schools. School managers and supervisors understand and promote the importance of soft skills (presentation, communication, time management, giving feedback and being a good member of a team). These skills are indispensable for researchers, teachers or decision-makers who may still be enrolled in a doctoral program. This did not use to be the case in the past. Professors would work with only one to five students personally. Focus used to be placed only on the research topic. And these influential characters served as role models. Since the labour market has a demand for well-established soft skills, doctorate schools explicitly offer these in workshops or courses.

Soft skills are not only important on the labour market, but also in research. The ability to effectively collaborate with team members, manage time, and

communicate clearly does have a significant impact on the outcome of research activities and outcomes. There is no clean-cut methodology without certain practical conditions being met. Social psychological research in a slummed ghetto, for example, cannot be conducted for lack of appropriate communication. Large-scale research in particle physics will not work without international cooperation. The relevance of 'soft skills' is increasing in the business and commercial sectors; however, science is not the part of the business sector. What may be effective in a large system employing a large number of people, may not be effective in science. One may be an exceptional presenter or team leader, but he/she may not be an outstanding scientific mind, for instance. And not every genius is necessarily a useful and effective cogwheel in the entire system of mechanics of teamwork.

The keyword perhaps is not 'skill', but certain personal virtues. Persistence, skills and ambition are the three most important pillars in the opinion of doctorate school leader, Martin Kreidl (Brno, Czech Rep.) and of course 'you need a good supervisor, too,' he adds. The general experience is that *persistent* students who do not immediately abandon their research topic upon facing the first hurdle have a much greater chance of completing their research. 'When hard times hit in my research activity, I persevered. This was one of the factors behind the success in completing my PhD, I guess. I picked up a specialised research topic, and I became an expert in a very special segment,' affirms one of my students, Pavel Sindlař from Brno, who studied the Japanese community in the Czech Republic. Well-developed soft skills may only be a side effect of the years spent in doctoral schools. Persistence and self-acknowledgement might be the real outcomes of the efforts invested in a research project, particularly when supported by an excellent supervisor.

## THE ROLE OF A SUPERVISOR

The main source of soft skills is practice, and the supervisor opens the door to that source. The attitude of a credible person is crucial besides the organisational culture which may support or may hinder the positive effect of the supervisor. In the past, most doctoral schools were small institutions operating in a familial climate, in which everyone knew each other. Professors taught soft skills unintentionally through their behaviour. These days the workload on PhD-students and also on their supervisors continues to increase; most students work outside the walls of the doctorate school so daily contact between student and supervisor is lost.

Several interviewees mentioned that some supervisors were not compliant with the official standards of the university. There are two sub-groups of these people. The first includes professors who personally support their students beyond the allegedly inflexible guidelines of the university. The other segment comprises renitent supervisors who bypass the official system and often attempt to exploit vulnerable doctoral students as resources.

When I asked supervisors about their personal missions, they unanimously replied with a long silence. Of course, each of these academicians have a personal mission of some sort, and perhaps they had never explicitly thought about it hitherto. Even if an intellectual was unable to explain their purpose in life on the spot, it does not mean they do not have one. A scientific career is not a simple matter of drafting a career plan in your twenties and spending the rest of your life achieving it. Yet the labour market and large companies want to see such plans with clearly outlined milestones, and measurability. Nobody questions the *raison d'être* of plans, milestones and evaluation in the field of scientific research; however a research activity, which engenders new knowledge or leads to novel approaches or a paradigm shift, is as much an artistic activity as it is a special operation of the mind. Human beings are unable to invent something on command or by a specific deadline or to forecast the estimated social impact and cost-savings of a new scientific discovery.

It was easier for the interviewed professors to talk about their most loved and most loathed activities. All my interviewed professors talked to me very positively about working together with their students, making personal visits to the research fields in humanities, or working together in the labs in natural sciences. And without exception, they would all want to avoid administrative tasks and the endless grapple with bureaucracy.

In my experience in the field of organisational research and development, I have found that bureaucracy is merely a surface, a weapon of some sort. The essence, the goal is always a struggle for dominance supported by the insurmountable mountain of bureaucracy. An infinitely complex bureaucratic system does not favour the most creative or the most committed researcher but rather those who can best utilise or make the most of the bureaucratic system itself. The inflexible organisation of a university supports an interest-group in order to save the status quo, regardless of whether that status quo is good for the students or for broader society.

At the same time, every supervisor is a member of the scientific community as well, and as such, they have to demonstrate the relevance and importance of their activity time after time. The likelihood of receiving the budget for the next

research project, or participation at a prestigious conference is contingent upon having access to the informal networks of the academic sphere. Everything is measured, ranked and reviewed. Complete mathematical models are in place to rank a professor, and students frequently do. ‘Sometimes I feel more like an Airbnb-apartment than an intellectual at a university,’ says a supervisor from the UK. There are universities, where the employment contract does explicitly reference the ranking and student reviews; but this also leads to discomfort in a professor who never knows whether his or her performance is acceptable in the long run. Using KPIs is common in several universities and is particularly widespread in British graduate schools. This makes the achievement of research activities measurable and comparable; however, the same way the value of a novel cannot be quantitatively measured and expressed, neither can the significance of a research finding.

A supervisor plays a diverse role: she or he is a teacher (a source of knowledge and attitude) and also a coach and what is more, ‘sometimes a foster parent,’ says Alice Gojova, dean at the University of Ostrava, Czech Republic. The objective and responsibility is to accompany the students on their paths, and to guide them to find their way. If the junior is treading the path of their professor, they become mere tools for the professor. In certain universities we can see possible evidence of labour abuse according to English Ross, who claims that some professors exploit their students’ talents and resources to advance their own personal objectives. Students are vulnerable because they are alone against a big organisation and without patronage.

To find the golden middle path is not an easy task for seniors acting as supervisors. In the short-term they are overwhelmed with work and want to be focusing on completing their own work. Nonetheless, they know that managing and involving juniors is investment into the future and a mission, an important long-term project.

## AT THE UNIVERSITY

After the Bologna Declaration came into effect (1999), I became a member of a research team aiming to evaluate student needs. The research question in Hungary was simple: do students need knowledge in theory, or the primordial mission of the university is to provide them with soft skills. We came across our main finding by accident (sometimes in scientific jargon it is referred to as ‘serendipity’): we had many times encountered unintentional ‘messages’. A handwritten post-it was stuck on the door of XY professor’s room: ‘XY professor’s session is going ahead as planned today’. This professor typically

forgot or cancelled 75% of his sessions, which sends out a message of irresponsibility and disrespect for obligations towards the university. The explicit target of the message, the curriculum, is not as important as the implicit one, the climate or culture of the organisation. The school will continue to invest efforts in the teaching of soft skills and concrete knowledge completely in vain for as long as the organisational culture and, even more so, the leaders' attitudes remain dissonant with the content.

Doctorate schools are not different in this sense. Students must learn a lot in inner diplomacy, in understanding the mechanism of informal channels, and the invisible network of forces in the world of the organisation of the university. And this learning process is not conscious. The experience is first-hand. One of my interviewees told me how she was virtually the victim of a personal war between two professors even during the defence of her dissertation.

A university is a big organisation requiring professional management and leadership. Every actor, professor, manager, student, and administrative employee possesses their own interests and, more or less, the tools to enforce them. Doctoral students have relatively few choices. They are not students in the strict sense of the term; almost all of them have a job and, often, children.

Zuzana Stanková, a final-year PhD-student, studies social work at doctoral level in Ostrava. (There are several students from Western European universities, as well, as there is no doctoral program offered in this field of science in several countries.) She is very active in her research project, is employed and has children: Life for her is not stress free. She works full-time and may only have time to write her thesis at night once she has put her kids to bed. In certain countries a junior researcher may receive EUR 1,000 monthly scholarship, but in the Czech Republic this is around EUR 270 in the 1<sup>st</sup> and 2<sup>nd</sup> years, and EUR 400 in the 3<sup>rd</sup> year at the doctoral school. Similarly to other workplaces, a university is also not free from stress and anxiety. Several interviewees, who had dropped their studies, talked of a sense of relief after quitting. Better time management, prioritising, being a good team member and practice mindfulness are nice tools, however it is a misbelief, that the responsibility lies only with the individual. Burnout, anxiety and overwork is all about the person, but the source of the suffering is the organisation and society. Ultimately, it is the individual who suffers; therefore it is worth investing in the improvement of mental health, which may be easily achieved in a university.

School managers play a crucial role in doctoral schools. A great leader may establish a great school, the creative and innovative climate will stem from everyday behaviour and cooperation among staff (students, professors,

administrative employees). The school manager enters at this point. In Britain almost every doctoral school employs a school manager, but this practice is not widespread on the continent. In several universities these two roles are not distinct. A leader is a person of significant scientific achievement and sometimes a person of charisma. The secretary is left to do the managerial work. In these departments, the secretary, charged with managerial functions, is usually the bad cop. The secretary may be responsible for fundraising, public communication, financing and meeting the deadlines of large-scale research projects, resource management, and other administrative tasks. Since universities and doctoral schools are more professional organisations rather than intellectual laboratories, these are regarded as necessary evils by academic people. In some ways and in more business-like working schools, this managerial attitude is just as important as science itself.

Doctoral schools are also competitors of each other: moving to another country, gaining everyday life experience abroad have been common practice among students since the first universities were established in Europe. For graduate students these skills are also a requirement, and those who acquire them at a suitable depth will be better off on the labour market than their less skilled peers – particularly in the less developed regions of Europe.

The contest among PhD-schools engenders demand for more deliberate marketing activity. ‘Sociology attracts fewer and fewer applicants, so we combined Anthropology, Social Psychology and Information Technology and as a result, we now have a 200% application rate,’ claims György Csepeli. A professor at the doctoral school of Management, Economics and Quantitative Methods in Bergamo, Italy, Maria Rosa Battaggion, explained that quantitative economy and management may be a strange mix, but even this mix inspires their our students and the teaching staff. There are schools, where harmony exists among management and leadership and this condition has a very positive impact on students: they may learn – mostly unconsciously – about the integrity of creative activity and structured steps during research work.

## FINANCING

A former leader of a doctoral school in Lombardia, Gianmaria Martini, is on the same page with Pavel Sindlař, a PhD graduate from the Czech Republic. They agree that only the most outstanding ones are able to complete their studies in graduate schools. The financial possibilities are different in each country. In an Eastern-European country, a student may have to pay as much as EUR 720 for a semester, whereas in another country the stipend may be EUR 1,000 a month.

Being a graduate student is sometimes a prolongation of unemployment, as stated in my interview with Gianfranco Rusconi at the University Bergamo in 2014. The economic conditions have changed in 2020 in universities. The most fortunate students have been allowed to enter into a contract with the department to perform administrative or smaller scale research tasks in funded research programs. Usually these positions were open only to junior scientists who are members of (most often informational) networks. Martin Kreidl (Masaryk University, Brno) is one of those leaders at a doctoral school, who would like to break away from this tradition and has set up an open application system for these positions. It has created a competitive environment, where the set of criteria is objective and published, and conducive to identifying the most competent person for the role.

If somebody is excluded from or not part of the system, it takes a lot of effort to make a living. 'My thesis was about Chinese minority and I got a job in a Chinese restaurant, so I could stay with my original research topic and also had a salary,' tells me one graduate. Taking part in research project coordinated by the university is important not only in order to cover the cost of living. Networking and being aware of the informal side of practices in a large institution is essential for the fulfilment of academic requirements and also critical for the financial position of a graduate after her doctoral studies. The experience and the funding of a lonely scholar, who is neither laboratory based nor a member of a pre-defined project that contributes to larger ongoing research, will much more depend on the school they are in and the relationship they have with their supervisors. This can be liberating in terms of autonomy and intellectual freedom but can also be isolating and demotivating as explained to me by English Ross.

Funding a three- or five-year graduation process is a momentous investment into the future. The return on investment will only be realised in the long run and not always in financial terms, but also in networking, prestige and in prospective opportunities for participation in larger-scale research projects. 'Pocket money doesn't even cover the basic needs. The bottom line is, if you don't have parents who would support you, you most likely end up working for a salary and you write your thesis in the evenings, which inevitably affects the quality of your product, your ability to publish articles and attend conferences. And even if you finished your PhD, you will find yourself most likely struggle to find a better labour position or a post doc. scholarship,' tells me a PhD-student from the United Kingdom.

## DEPRIVED STUDENTS

In a proposal for participation in a workshop, a PhD-student from Iran explained that her choice to pursue a PhD in Economics was driven by her strong interest in international migration, which was the consequence of an exciting personal experience throughout her years. The opportunity to work on what interested her the most combined with the possibility to live and work in an international environment had made the decision to pursue an academic career a very easy one. A smaller, but not insignificant share of graduate students chooses a topic relevant to their lives. 'In MA, I studied Romology (Romani studies), my thesis in the doctoral school is on »*Generational changes of the Romani intellectuals life paths - the effects of the social resilience*«, ' tells me Dezső Máté, who is openly a member of the Roma and the LMBTQ community.

English Ross believes we need to be cautious about grouping too much into science versus social science as within those disciplines experience can be very different. Dominik Jackson-Cole's PhD thesis in 2019 reported that his research suggested that the lack of intersectional thinking in the conceptualisation of Widening Participation policy had negative impacts on black and minority ethnic students. These students 'experienced othering. This stemmed from academics' discourses marking racial difference and from how the organisational structures of the PG field relegated these students to a category of needing support. This had negative impacts on their progression and mental wellbeing. The discussion on the effects of positive discrimination is far from being over in public discourse and also among the walls of the doctoral schools. Several highly-talented students recruited from minority groups are forced to invest excessive energies in improving their academic writing, English language skills, or networking. This is more indicative of the discriminative tendencies of the education system rather than of their personal or group qualities. Students from lower socioeconomic groups are underrepresented at doctoral level, claims Paul Wakeling (University of York) in 2016 in his research on '*Measuring Doctoral Student Diversity socio-economic background*'. In the field of social sciences students are inclined to choose a topic that is relevant to where they come from. Emeritus professor at the University of Vienna, Austria, Thomas Bauer told me they taught students ways to find enjoyable subject matters for their dissertation, something they enjoyed working on. It is also true for students who are members of a particular social group (an ethnic minority, member of the LMBTQ community, refugee or young adult without a family or from an orphanage). However, the responsibility of their supervisors is immense at this point. The main task is to keep the student on a pretty narrow track of calm scientific objectivism and the engine of personal involvement. Although the aim

of scientific activity is not to learn to cope with one's trauma, the doctoral program may also have a positive impact on one's frame of mind as a possible beneficial side effect.

Success in an academic field might be an important career objective for other members of vulnerable groups. Sometimes the individual pays a high fee for being a role model for others: social mobility and increased mental load caused by graduating go hand in hand. Not only does the graduate student have responsibility in this sense, but so does the supervisor, the climate of the university, and the whole system of higher education.

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